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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/542,373

07/14/2005

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EXAMINER

MESH, GENNADIY

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/542,373	Applicant(s) MIZUMURA ET AL.	
	Examiner GENNADIY MESH	Art Unit 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 July 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 3,4,13-15 and 18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-2,5-12, 16-17 and 19-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 7/25/2008 has been entered.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

1. Claims 1-2, 5 – 12, 16-17 and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fujita et al.(US 4,965,919) in view of Yamamoto (US 6,593,447) and in further view of Kowallik et al.(4,254,018).

Regarding Claim 1 Fujita “919” discloses polyester commingled yarn, comprising at least two types of filaments with different boiling water shrinkage ratios value (see abstract and lines 35-52,column7).

Fujita does not disclose specific method for polymerization of the polyester nor specific catalyst claimed by Applicant in Claim 1.

However, Yamamoto teach, that polyester fiber(see lines 16-22,column 1) can be obtain from polyester produced by polycondensation process, wherein catalyst comprising reaction product of :

i) titanium compound - see formula (I) of abstract - this compound is substantially same as compound (I) of amended Claim 1

ii) aromatic polyfunctional carboxylic acid, preferably trimellitic acid – see formula (II) of abstract and column 6, lines 14-22 – this component same as component (II) of amended Claim 1

iii) phosphorus compound - see Formula (III) of abstract- this component same as component (IV) of amended Claim 1.

iiii) ratio between Titanium and Phosphorus varies from 1 to 4 (see column 5, lines 29-39) - therefore formula (i) of Claim 1 is satisfied. Same related to formula (ii) of Claim 1: amount of Titanium provided by Yamamoto - see Example 9 and column 16 - is 20 millimoles, than amount of Phosphorous can be 80 millimoles (based on 1 to 4 ratio) , than sum of $20 + 80 = 100$ satisfied formula (ii).

Yamamoto further teach that this catalytic system allowed to obtain **polyester with good color tone and excellent melt stability** compare for example with polyester obtained by antimony comprising catalyst (see lines 46-61, column 1 and 50 – 57, column 2).

Therefore, it would have been obvious for ordinary skill in the art at the time of the invention to use polyester, obtain by process catalyzed by titanium compound as it taught by Yamamoto, for production of polyester commingled yarn disclosed by Fujita.

Note, that Yamamoto silent regarding use of alternative phosphorus compound (see Formula (III)) claimed by applicant in amended Claim 1.

However, use of this specific phosphorus compound (Formula (III) in amended Claim 1) for polyester polymerization and yarn production is well known in the art.

Kowallik teach(see abstract) that phosphonate compound of chemical Formula (III) can be used as heat stabilizing agent during polyester polymerization process and capable not only suppress discoloration, but also prevent **formation of coarse precipitates that can clog spinning dyes during fiber production.**

Therefore, it would have been obvious for ordinary skill in the art at the time of the invention to obtain polyester fiber structure by polymerization process disclosed by Yamada in view of Yamamoto, wherein heat stabilizing compound is the specific compound (compound of Formula III in claim 1) taught by Kowallik in order prevent **formation of coarse precipitates that can clog spinning dyes during fiber production.**

Regarding limitations of Claim 2 - see Yamamoto, lines 50 – 53,column 6 and lines 29-39,column 5.

Regarding limitations of Claims 5, 6, 16-17 and 19-20 – see Yamamoto, lines 60-68,column 8 and column 9, lines 1-50.

Regarding limitations of Claim 7 – see Fujita(abstract and lines 35-52,column7).

Regarding limitation of Claim 8 - Fujita discloses that yarn has substantial sheath-core fashion (see lines 31-33,column 5).

Regarding limitations of Claims 9 and 10 – see Fujita lines 24-35, column 6. Also note, that as substantially same polyester yarn – obtain from same composition and same processing conditions, yarn will have substantially same properties, including boiling water shrinkage ratio and crimp ratio..

Regarding limitations of Claim 11 – see Fujita Table 1.

Regarding limitations of Claim 12 – see Fujita lines 35-52, column 7.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1-2 and 5 - 6 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-20 of

copending Application No. 10/541,574: claims of both Applications significantly overlapping in scope as claimed subject matter drawn to polyester fibers, obtain by the same polymerization process with same catalytic system in both Applications.

This is a provisional obviousness-type double patenting rejection.

3. Claims 1-2 and 5 - 6 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1- 15 of copending Application No. 10/535,419: claims of both Applications significantly overlapping in scope as claimed subject matter drawn to polyester fibers, obtain by the same polymerization process with same catalytic system in both Applications.

This is a provisional obviousness-type double patenting rejection.

4. Claims 1-2 and 5 - 6 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-2 of U.S. Patent No.7,371,701 in view of US Patent No.6,818,282.

Claims 1-2 and 5 - 6 of instant application directed to polyester yarn, comprising polyester fiber obtain by specific catalytic system. Claims 1-2 of U.S. Patent No.7,371,701 directed to non-woven polyester material, comprising hot melt and polyester fibers, obtain by same catalytic system. Therefore, difference between claimed subject matter of instant application and U.S. Patent No.7,371,701 in a presence of hot melt in non-woven material.

However, US patent No. 6,818,282 teach that polyester fibers can used for non-woven fabrics by bonding the fibers with adhesives, including hot melt adhesives(see column 2, lines 55-68 and column 3, lines 1-3).

Therefore, it would be obvious to one of ordinary skill modify claims 1-2 and 5 - 6 of instant Application per teaching of US Patent No.6,818,282 in order to obtain non-woven fabric by bonding polyester fibers with hot melt adhesive.

Response to Arguments

5. Applicant's arguments filed on June 26,2008 have been fully considered but they are not persuasive.

5.1. Applicant's arguments related to Claims 1-2, 5 – 12, 16-17 and 19-20 rejected under 35 U.S.C. 103(a) as being unpatentable over Fujita et al(US 4,965,919) in view of Yamamoto (US 6,593,447) and in further view of Kowallik et al.(4,254,018) based on alleged deficiency of individual references.

Applicant stated that Fujita silent regarding presence of specific catalyst claimed by Applicant, Yamamoto is silent regarding specifics of fiber and Kowallik does not teach specific reaction product as it claimed in Claim 1.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

In addition note, that combination of Fujita, Yamamoto and Kowallik teach all elements of subject matter claimed by Applicant including all features of amendment claim 1: specific carboxylic acid as trimellitic acid, specific phosphorous compound (see Kowallik - abstract). All other features (A to G) listed by Applicant were described in rejection above (see paragraph 1).

5.2. ODP rejection is maintained for the Record. Note, that rejection over US Patent No.7,371,701 in view of US Patent No.6,818,282 is new (see paragraph 4).

Conclusion

THIS ACTION IS NOT MADE FINAL

Any inquiry concerning this communication or earlier communications from the examiner should be directed to GENNADIY MESH whose telephone number is (571)272-2901. The examiner can normally be reached on 10 a.m - 6 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272 1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1796

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Gennadiy Mesh
Examiner
Art Unit 1796

/GM/

/VASUDEVAN S. JAGANNATHAN/
Supervisory Patent Examiner, Art Unit 1796